Amendments to the Claims

Please Cancel claims 1-7 and 17-47.

Please amend claims 8, 10, 48, 50, 52, 54, 55, 57, 59, 60, 62, 67, and 69 as indicated below:

Claims 1-7. Cancelled.

Claim 8. (currently amended) A method of directing differentiation of human embryonic cells to a specific cell type, comprising:

a. permitting a population of human embryonic stem cells to form embryoid bodies *in vitro*;

b. dissociating the embryoid bodies to provide dissociated embryonic cells [~~for differentiating in the presence of~~]

c. exposing said dissociated embryonic cells derived from the embryoid bodies to at least one exogenous factor for an effective period of time; and

d. causing directed differentiation of said dissociated embryonic cells to form the specific cell type.

Claim 9. (original) A method according to claim 8, wherein the embryoid bodies are formed in a suspension culture.

Claim 10. (original) A method according to claim 8, wherein the dissociated embryonic cells are monolayer cultures.

Claim 11. (original) A method according to claim 8, wherein the exogenous factor is a growth factor.

Claim 12. (original) A method according to claim 8, wherein the exogenous factor is an interleukin.

Claim 13. (original) A method according to claim 11, wherein the exogenous factor is nerve growth factor.

Claim 14. (0riginal) A method according to claim 8, wherein the exogenous factor is retinoic acid.

Claim 15. (original) A method according to claim 8, wherein the differentiated cells are neuronal cell type.

Claim 16. (original) A method according to claim 15, wherein the differentiated cells have neuronal processes.

Claims 17-47. Cancelled.

Claim 48. (currently amended) A method of directing differentiation of human embryonic cells to human ectoderm cells, comprising:

a. permitting a population of human embryonic stem cells to form embryoid bodies *in vitro*;

b. dissociating the embryoid bodies to provide dissociated embryonic cells [~~for differentiating in the presence of~~]

c. exposing said dissociated embryonic cells derived from the embryoid bodies to at least one exogenous factor for an effective period of time; and

[[c]]d. causing directed differentiation of said dissociated embryonic cells to form human ectoderm cells.

Claim 49. (withdrawn) A method according to claim 48, wherein, in causing, said embryonic cells form human epidermal skin cells.

Claim 50. (currently amended) A method according to claim 49, wherein, in ~~dissociating~~ exposing, the at least one exogenous factor includes EGF.

Claim 51. (previously presented) A method according to claim 48, wherein, in causing, said embryonic cells form human brain cells.

Claim 52. (currently amended) A method according to claim 51, wherein, in ~~dissociating~~ exposing, the at least one exogenous factor includes at least one of RA and NGF.

Claim 53. (withdrawn) A method according to claim 48, wherein, in causing, said embryonic cells form human adrenal cells.

Claim 54. (currently amended) A method according to claim 53, wherein, in ~~dissociating~~ exposing dissociating, the at least one exogenous factor includes RA.

Claim 55. (currently amended) A method of directing differentiation of human embryonic cells to human endoderm cells, comprising:

a. permitting a population of human embryonic stem cells to form embryoid bodies *in vitro*;

b. dissociating the embryoid bodies to provide dissociated embryonic cells [~~for differentiating in the presence of~~]

c. exposing said dissociated embryonic cells derived from the embryoid bodies to at least one exogenous factor for an effective period of time; and

[[c]]d. causing directed differentiation of said embryonic cells to form human endoderm cells.

Claim 56. (withdrawn) A method according to claim 55, wherein, in causing, said embryonic cells form human liver cells.

Claim 57. (currently amended) A method according to claim 56, wherein, in ~~dissociating~~ exposing, the at least one exogenous factor includes at least one of HGF and NGF.

Claim 58. (withdrawn) A method according to claim 55, wherein, in causing, said embryonic cells form human pancreatic cells.

Claim 59. (currently amended) A method according to claim 58, wherein, in ~~dissociating~~ exposing, the at least one exogenous factor includes at least one of HGF and NGF.

Claim 60. (previously presented) A method of directing differentiation of human embryonic cells to human mesoderm cells, comprising:

a. permitting a population of human embryonic stem cells to form embryoid bodies *in vitro*;

b. dissociating the embryoid bodies to provide dissociated embryonic cells [~~for differentiating in the presence of~~]

c. exposing said dissociated embryonic cells derived from the embryoid bodies to of at least one exogenous factor for an effective period of time; and

[[c]]d. causing directed differentiation of said embryonic cells to form human mesoderm cells.

Claim 61. (withdrawn) A method according to claim 60, wherein, in causing, said embryonic cells form human chondrocytes.

Claim 62. (currently amended) A method according to claim 61, wherein, in ~~dissociating~~ exposing, the at least one exogenous factor includes BMP-4.

Claim 63. (withdrawn) A method according to claim 60, wherein, in causing, said embryonic cells form human kidney cells.

Claim 64. (withdrawn) A method according to claim 60, wherein, in causing, said embryonic cells form human Mullerian duct cells.

Claim 65. (previously presented) A method according to claim 60, wherein, in causing, said embryonic cells form human blood cells.

Claim 66. (withdrawn) A method according to claim 60, wherein, in causing, said embryonic cells form human heart muscle cells.

Claim 67. (currently amended) A method according to claim 66, wherein, in ~~dissociating~~ exposing, the at least one exogenous factor includes at least one of TGF-β and activin-A.

Claim 68. (withdrawn) A method according to claim 60, wherein, in causing, said embryonic cells form human skeletal muscle cells.

Claim 69. (currently amended) A method according to claim 68, wherein, in ~~dissociating~~ exposing, the at least one exogenous factor includes at least one of TGF-β and activin-A.